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Cp

various electron beam devices such as a scanning electron microscope have conventionally been used, and in particular, there has been a high demand for high resolution observation accompanying the fact that electron beam devices have become ultra fine in recent years. As an electromagnetic lens enabling high resolution observation, Japanese patent laid open No. Hei. 6-24106 disclosed a structure where a decelerating electrical field is caused to overlap a lens magnetic field, reducing the spherical aberration factor  $C_s$  and chromatic aberration factor  $C_c$ .--

Please replace the paragraph beginning at page 2, line 11, with the following rewritten paragraph:

A2

--Although not shown in Fig. 5, in an actual lens barrel a vacuum tube, a collimating lens, a deflector, an air lock valve and a movable aperture are arranged between an electron beam generator and an objective lens. Accordingly, when a high voltage is applied to each of these elements, as described above, measures, such as providing an optical system, are required to cope with this. Further, problems arise such as damage and electron beam charging due to electrical discharge from the high voltage sections, and it is easy for disadvantages such as cost increase, and increase in the frequency of maintenance to occur to a significant

*A<sup>2</sup>  
cont*

increase in the number of components. There is proposed a structure where midway along the inside of lens barrel, the potential falls from a high potential to ground potential with advancement of an electron beam and a high potential is applied again to the electrode RE, but it becomes necessary to take into consideration a lens operation at voltage varying sections, and there is a separate problem that an electron optical system is made complicated.--

**Please replace the paragraph beginning at page 2, line 32, with the following rewritten paragraph:**

*A<sup>3</sup>*

--Another object of the present invention is to provide an electromagnetic field superimposed lens and an electron beam device using this electromagnetic field superimposed lens that can solve the problems described above that exist in the related art and which results in simplification of the structure, and particularly enables stable and high resolution observation with a low acceleration sample irradiation voltage.--

**Please replace the paragraph beginning at page 5, line 9, with the following rewritten paragraph:**

*A<sup>4</sup>*

--Fig. 1 is a cross sectional drawing showing one example of an embodiment of an electromagnetic field superimposed lens of the present invention. The

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electromagnetic field superimposed lens 1 (or compound lens) is constructed as an objective lens for an electron beam device such as a scanning electron microscope used to examine or observe the shape of a micro-electronic device, and is an electrostatic collimating lens having a structure where an electrical field type bi-potential lens 3 built in to a magnetic field type lens 2, a magnetic focusing action is imparted to an electronic beam penetrating along an optical axis X due to the magnetic field type lens 2, and at the same time a decelerating electrical field due to the electrical field type bi-potential lens 3 is superimposed on the magnetic field to reduce an aberration factor of the lens, so as to enable high resolution observation.--

Please replace the paragraph beginning at page 6, line 4, with the following rewritten paragraph:

A5  
--On the other hand, the second magnetic pole 212 is formed substantially in a bowl or conical shape, with a large diameter opening edge section 212A, begin one end of the second magnetic pole section 212, being fixed to a tip section 211Ba of the overhanging section 211B via the insulating body 213. The insulating body 213 is an annular body corresponding to the size and shape of the other end edge 211Ab and the main section 211A, and the overhanging section 211B is integral